

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

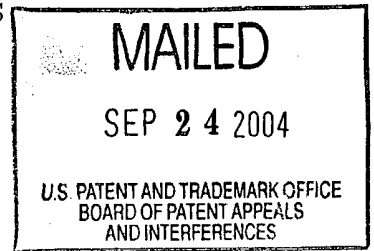
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YOICHI MIZUNO

Appeal No. 2004-1862
Application No. 09/784,041

ON BRIEF



Before OWENS, KRATZ and DELMENDO, Administrative Patent Judges.
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's refusal to allow claim 2, which is the only claim pending in this application.

BACKGROUND

Appellant's invention relates to a pneumatic tire having a bead portion wherein a specific rubber composition is employed in the bead portion of the tire. An understanding of the invention can be derived from a reading of appealed claim 2, which is reproduced below.

2. A heavy duty pneumatic tire, wherein said heavy duty pneumatic tire employs in its bead portion a chafer rubber composition,

wherein in said chafer rubber composition 55-75 parts by weight of carbon black having a nitrogen absorption specific surface area of 70-120 m²/g and 0.2-0.5 parts by weight of 1, 3-bis (citraconimidomethyl) benzene are blended with respect to 100 part by weight of a rubber component including 30-50 parts by weight of natural rubber and/or polyisoprene rubber and 50-70 parts weight of polybutadiene rubber which has a syndiotactic crystal content of at least 5% by weight, wherein a ratio S/A of a blended amount of sulfur S and a blended amount of vulcanization accelerator A is in a range between 0.25 and 0.5.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Matsue et al. (Matsue)	5,420,193	May 30, 1995
Majumdar et al. (Majumdar)	5,503,940	Apr. 02, 1996
Carter	5,807,918	Sep. 15, 1998
Muraoka et al. (Muraoka)	5,859,142	Jan. 12, 1999

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Muraoka in view of Majumdar, Matsue and Carter.

We refer to the brief and reply brief and to the answer for a complete exposition of the opposing viewpoints expressed by appellant and the examiner concerning the issues before us on this appeal.

OPINION

Having carefully considered each of appellant's arguments set forth in the brief and reply brief, appellant has not persuaded us of reversible error on the part of the examiner. Accordingly, we will affirm the examiner's rejection for substantially the reasons set forth by the examiner in the final rejection and answer. We add the following for emphasis.

The examiner has correctly determined that Muraoka expressly discloses a tire prepared with a rubber containing tire bead chafer that substantially corresponds with the claimed tire but for a few requirements of the specific tire bead chafer rubber called for in appealed claim 2. See page 4 of the answer. In this regard, the examiner (answer, pages 4 and 5) further provides:

[Muraoka] is silent with respect to (i) the inclusion of 1, 3-bis(citracoimidomethyl) benzene or BCl in an amount between 0.2 and 0.5 phr and (ii) the BET surface area of the carbon black. Regarding the inclusion of BCl, Majumdar describes the use of bis-imide compounds, specifically BCl [Trademark: Perkalink 900], in an amount between 0.1 and 5 phr in tire rubber compositions formed of natural rubber and synthetic rubbers (used as an adhesive) in order to, among other things, improve durability and reduce reversion (analogous to aging resistance) (Column 2, lines 27-54 and Column 3, lines 13-21). As such, one of ordinary skill in the art at the time of the invention would have found it obvious to include BCl in the chafer composition of Muraoka, there being a reasonable

expectation of success to obtain improved durability and aging resistance in the chafer of Muraoka.

In this regard, Muraoka (column 4, lines 52-56) discloses that "other additives for rubbers generally used in the production of tires . . ." can be used in the chafer rubber composition disclosed therein. Furthermore, the examiner (final rejection, page 3) has made the factual determination that "anti-reversion agents in general are conventionally employed in tire components, especially those containing natural rubber, in order to eliminate the reduction in crosslink density and ultimately increase the strength and durability of the respective tire component." That factual determination has not been directly refuted by appellant.¹ Given this record, we determine that the examiner has set forth a reasonable case establishing, prima facie, that one of ordinary skill in the art would have been led

¹ At page 5 of the answer, the examiner maintains that appellant has not challenged the factual veracity of the examiner's determination. In the reply brief, appellant refers to a further factual determination of the examiner. Rather than dispute those determinations, appellant offers an argument as to the procedural correctness of the examiner's factual findings. However, this record does not reflect that appellant submitted a petition seeking redress from the matters complained of. On this record, we agree with the examiner that the noticed facts have not been refuted in a timely manner by appellant.

to add BCl in an amount within the claimed addition amounts to the chafer rubber of Muraoka.

Moreover, it is our view that the examiner has reasonably determined that it would have been prima facie obvious for one of ordinary skill in the art at the time of the invention to employ a carbon black possessing a nitrogen adsorption specific surface area with the range claimed in the chafer rubber of Muraoka based on the combined teachings of the applied references for reasons as set forth in the final rejection and answer. As noted by the examiner, Muraoka (column 4, lines 1 and 2) discloses the use of N220 and N330 carbon blacks. Those carbon blacks reasonably correspond to carbon blacks identified in Table 2 at page 7 of appellant's specification as having a nitrogen adsorption specific surface within the claimed range.

Consequently, we agree with the examiner that the evidence furnished is sufficient to establish the prima facie obviousness of the here claimed subject matter.²

² We note that appellant does not offer any specific and persuasive arguments that refute the examiner's obviousness position concerning the carbon black limitation of claim 2 based on the combined teachings of the applied references for the reasons stated in the answer. Consequently, we do not further address that limitation herein.

Appellant maintains that the examiner's proposed modification of Muraoka is not supported by the evidence relied upon by the examiner. In this regard, appellant argues that there is a lack of a legally specific suggestion for the examiner's proposed modification. Appellant further asserts that the examiner appears to have employed impermissible hindsight in fashioning the rejection on what could be termed an obvious to try rationale. Appellant returns several times to Muraoka in asserting that Muraoka developed a chafer rubber composition having the desired properties of high aging resistance, high durability and high hardness without using BCl. Consequently, in appellant's view that fact militates against the examiner's proposed modification.

We disagree with appellant's arguments because Muraoka, as discussed above, expressly teaches that the chafer rubber composition disclosed therein can include additional rubber additives that are generally used in tire production. Here, the examiner has made the unchallenged factual determination that reversion agents are such a generally used additive. Given the disclosure in Majumdar that BCl is an anti-reversion agent (anti-aging agent), one of ordinary skill in the art would have reasonably expected that the addition of such an agent to the

chafer rubber of Muraoka would also enhance properties of the rubber composition of Muraoka that have been identified as being of interest for such a chafer rubber. While we are cognizant of a difference between the chafer rubber of Muraoka and the adhesive composition (used as a cushion layer or splice material in a tire) of Majumdar, we are also aware of the many commonalities as pointed out by the examiner as well as the unrefuted factual findings of the examiner concerning the conventional use of anti-reversion agents with natural rubbers, such as employed in Muraoka's rubber composition. Here, appellant has not satisfactorily explained why the examiner's position is in error given those factual findings of the examiner that have not been refuted on this record.

Concerning appellant's allegation of unexpected results based on the test results reported in appellant's specification, we note that the question as to whether unexpected advantages have been demonstrated is a factual question. In re Johnson, 747 F.2d 1456, 1460, 223 USPQ 1260, 1263 (Fed. Cir. 1984). Thus, it is incumbent upon appellant to supply the factual basis to rebut the prima facie case of obviousness established by the examiner. See, e.g., In re Klosak, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972). Appellant, however, do not provide an adequate

explanation regarding any factual showing in the specification, that is referred to in the brief, to support a conclusion of unexpected advantages for the reasons set forth by the examiner in the answer.

In particular, appellant has not established that the test results presented represent unexpected results based on the declaration/affidavit of a qualified expert but merely assert such by way of attorney argument in the briefs. Moreover, the specification test results are not reasonably commensurate in scope with the here claimed invention. We note that the specification examples and tables relate to products made using specific synthetic rubbers, accelerators, carbons, and other additives, as well as using specific manufacturing steps set forth in the specification, whereas appealed claim 2 is not so limited. Thus, it is apparent that appellant's evidence is considerably more narrow in scope than the appealed claim. See In re Dill, 604 F.2d 1356, 1361, 202 USPQ 805, 808 (CCPA 1979).

Moreover, for reasons set forth by the examiner in the answer, we are not satisfied that the evidence of record that is offered demonstrates results that are truly unexpected. Nor has appellant satisfied the burden of explaining how the results reported for those limited examples presented can be extrapolated

therefrom so as to be reasonably guaranteed as attainable through practicing the invention as broadly claimed.

Having reconsidered all of the evidence of record proffered by the examiner and appellant, we have determined that the evidence of obviousness, on balance, outweighs the evidence of nonobviousness. Hence, we conclude that the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art. Accordingly, we affirm the examiner's § 103(a) rejection of claim 2.

CONCLUSION

The decision of the examiner to reject claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Muraoka in view of Majumdar, Matsue and Carter is affirmed.

AFFIRMED

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